

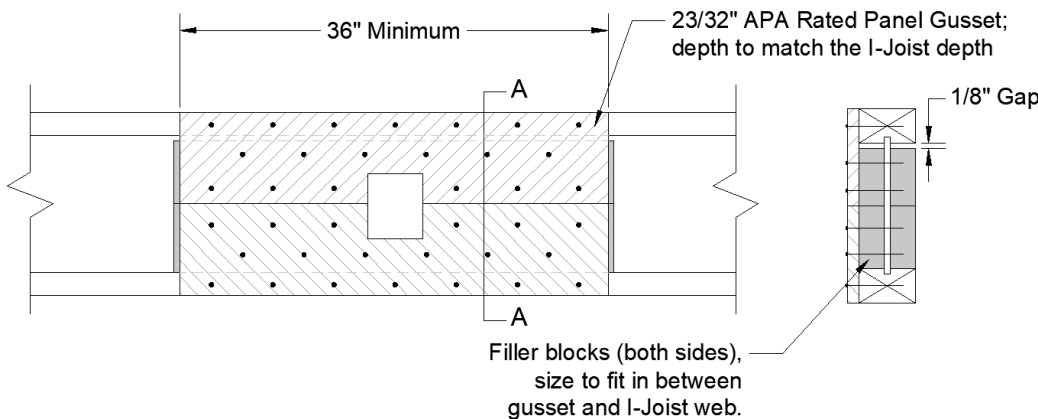
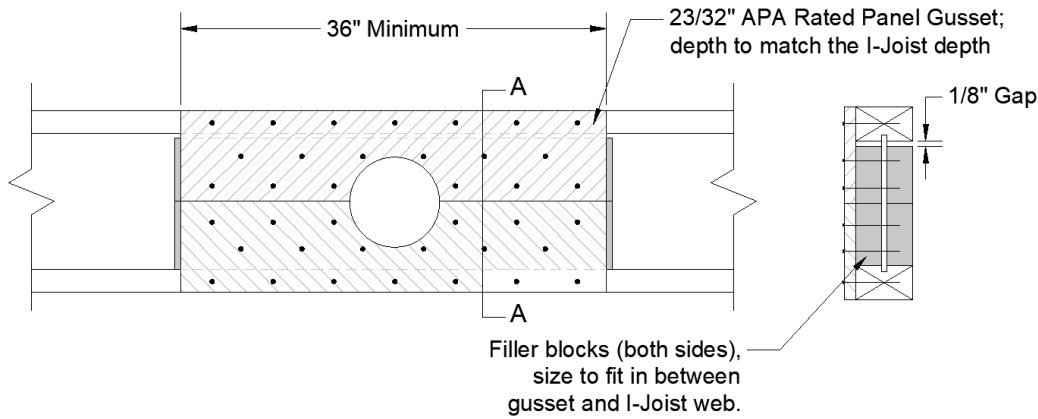
# PinkWood PKI® Joists

## Web Repair with Services Remaining – Canada (LSD)

### I-joist web repair for holes:

When holes are cut at a shorter distance to the bearing supports than indicated in the I-Joists Technical Guide, CSD software, or when the allowable shear resistance at the hole location is exceeded, it is recommended to remove the service item and reinforce the web as per the **“Standard Web Repair”** technical note. When this is not possible and the penetrating item must remain in place, the following detail can be used to restore the I-joist allowable shear resistance.

### ROUND AND RECTANGULAR HOLES:

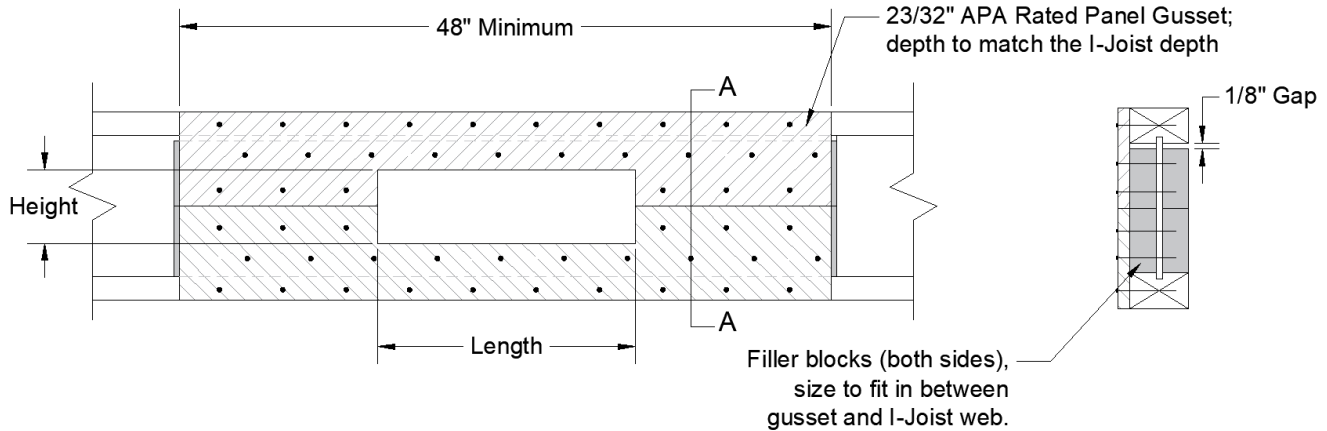


**Notes:**

- Install web fillers SPF #2 (or better grade), both sides, cut tightly around the hole, centered at the hole location (along the span), and sized to fit in between the gusset and the web. Apply construction adhesive to all contact surfaces.
- Install the 23/32" APA Rated Panel Gusset, depth to match the I-Joist depth, cut tightly around the hole, and centered at the hole location (along the span). Apply construction adhesive to all contact surfaces.
- Fasten the Gusset and the web fillers with 6 rows of 8d common nails (0.131" x 2.5") at 4" o.c. spacing, staggered. Nail min. edge distance = 2".
- Detail valid for uniformly loaded joists used for residential applications as per NBC – Part 9.
- Gusset and web fillers could be spliced horizontally at joist mid-height.
- Min. clear distance between the closest edge of the hole and the inside edge of the bearing support shall be 18".
- No other holes shall exist along the reinforcement length.
- The max. dimensions for the holes are as indicated in the table below.
- The max. factored shear resistance indicated in the table below shall not be exceeded.

Joists Series	Joist Depth (in)	Round Hole - Max. Diameter (in)	Rectangular Hole - Max. Longest Dimension (in)	Max. Factored Shear at the Hole Location (lbs) with reinforcement
PKI®20, 35Plus	9.5	4 1/2	3 3/8	1990
	11.875	5	3 3/4	2345
	14	5 1/2	4	2650
	16	6 1/2	4 7/8	2950
PKI®23	9.5	4 1/2	3 3/8	2500
	11.875	5	3 3/4	2850
	14	5 1/2	4	3165
	16	6 1/2	4 7/8	3455
PKI®40	9.5	4 1/2	3 3/8	2115
	11.875	5	3 3/4	2565
	14	5 1/2	4	2960
	16	6 1/2	4 7/8	3340
PKI®50	11.875	5	3 3/4	3370
	14	5 1/2	4	3600
	16	6 1/2	4 7/8	3810

**DUCT CHASE** (longest dimension exceeds  $\frac{3}{4}$  of the max. allowed round hole, but it does not exceed the dimensions shown below):



**Notes:**

- Install web fillers SPF #2 (or better grade), both sides, cut tightly around the hole, centered at the hole location (along the span), and sized to fit in between the gusset and the web. Apply construction adhesive to all contact surfaces.
- Install the 23/32" APA Rated Panel Gusset, depth to match the I-Joist depth, cut tightly around the hole, and centered at the hole location (along the span). Apply construction adhesive to all contact surfaces.
- Fasten the Gusset and the web fillers with 6 rows of 8d common nails (0.131" x 2.5") at 4" o.c. spacing, staggered. Nail min. edge distance = 2".
- Detail valid for uniformly loaded joists used for residential applications as per NBC – Part 9.
- Gusset and web fillers could be spliced horizontally at joist mid-height.
- Min. clear distance between the closest edge of the hole and the inside edge of the bearing support shall be 24".
- No other holes shall exist along the reinforcement length.
- The max. dimensions for the holes are as indicated in the table below.
- The max. factored shear resistance indicated in the table below shall not be exceeded.

Joists Series	Joist Depth (in)	Duct Chase Length (in)	Duct Chase Height (in)	Max. Factored Shear at the Hole Location (lbs) with reinforcement
PKI®20	9.5	16	6	1990
	11.875	18	8	2345
PKI®23	9.5	16	6	2500
	11.875	16	8	2850
	14	12	10	3165
	16	8	8	3455
PKI®35Plus	9.5	16	6	1990
	11.875	18	8	2345
PKI®40	9.5	16	6	2115
	11.875	18	8	2565
	14	16	10	2960
	16	10	10	3340
PKI®50	11.875	12	8	3370
	14	8	8	3600
	16	5	8	3810